

REMARKS

Claims 1, 11 and 14 have been cancelled and new claims 22-28 added. Claims 4-28 are pending in the application. Reexamination and reconsideration of the application as amended are requested.

Applicant wishes to express appreciation to Examiner Nolan for his courtesy at the interview conducted at the Patent Office on July 29, 2002. During the interview, the undersigned attorney explained the operation of the present invention in which one or more characteristics such as volume or pitch limits are extracted from a sound signal and the extracted characteristic is in turn used to set parameters for subsequent analysis of sound signals. For example, by extracting the singing volume of a given performer, the volume threshold can then be set appropriately for subsequent analysis of the singer's performance.

At the interview, the Examiner indicated that claim 1 was unclear due to its alternative recitations regarding volume level and upper and lower pitch limits characteristics. Although as explained at the interview it is believed that claim 1 is clear, in order to avoid any confusion, claim 1 has been cancelled and replaced with new claims 22 and 23 which separately address volume level and pitch limit characteristics. Similarly, claim 11 has been replaced with new claims 24 and 25 and claim 14 replaced with new claims 26 and 27. Each of the new claims clearly specifies the operation of extraction of a particular characteristic and use of the extracted characteristic to set a parameter for use in subsequent analysis of received sound signals. As discussed at the interview in connection with claim 1, this feature is not shown in any of the references.

With respect to claim 6 and claims dependent therefrom, this claim defines determining what note of a particular selected scale an extracted sound signal corresponds to based upon detected pitch. Different scales have different constituent notes, and the invention permits accurate note determination in accordance with the selected scale.

The references relied upon by the Examiner contain no disclosure whatsoever regarding note determination in accordance with a selected scaled determining condition. The references themselves contain no motivation to provide scale selection or note determination based in any way upon scale selection, and it is respectfully submitted that claim 6 is therefore patentable over the references.

In view of the foregoing, it is respectfully submitted that all of the claims are in condition for allowance, and such action at an early date is solicited.


Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made".

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 39303-20094.00. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

22. (New) A sound signal analyzing device comprising:
- an input section that receives sound signals to be analyzed;
 - a characteristic extraction section that extracts a volume level of a sound signal as it is received by said input section; and
 - a setting section that sets various parameters for use in subsequent analysis of sound signals received by said input section in accordance with the volume level characteristic of the sound signal extracted by said characteristic extraction section, including at least a threshold value.

23. (New) A sound signal analyzing device comprising:
an input section that receives sound signals to be analyzed;
a characteristic extraction section that extracts at least one of upper and lower pitch limits of a sound signal as it is received by said input section; and
a setting section that sets various parameters for use in subsequent analysis of sound signals received by said input section in accordance with the pitch limits characteristics of the sound signal extracted by said characteristic extraction section, including at least a filter characteristic.

24. (New) A sound signal analyzing method comprising the steps of:
receiving sound signals to be analyzed;
extracting a volume level of the sound signal as it is received by said step of receiving;
and
setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the volume level of the sound signal extracted by said step of extracting, including at least a threshold value.

25. (New) A sound signal analyzing method comprising the steps of:
receiving sound signals to be analyzed;
extracting at least one of upper and lower pitch limits characteristics of a sound signal as it is received by said step of receiving; and
setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the pitch limits characteristics extracted by said step of extracting, including at least a filter characteristic.

26. (New) A machine-readable medium containing a group of instructions of a sound signal analyzing program for execution by a computer, said sound signal analyzing program causing the computer to execute the steps of:
receiving sound signals to be analyzed;
extracting a volume level of a sound signal as it is received by said step of receiving; and
setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the volume level of the sound signal extracted by said step of extracting, including at least a threshold value.

27. (New) A machine-readable medium containing a group of instructions of a sound signal analyzing program for execution by a computer, said sound signal analyzing program causing the computer to execute the steps of:
receiving sound signals to be analyzed;
extracting at least one of upper and lower pitch limits of the sound signal as it is received by said step of receiving; and
setting various parameters for use in subsequent analysis of sound signals received by said step of receiving in accordance with the pitch limits characteristics extracted by said step of extracting, including at least a filter characteristic.

4. (Amended) A sound signal analyzing device as recited in claim 22 which further comprises a display section that visually displays the characteristic of the sound signal extracted by said characteristic extraction section.

28. (New) A sound signal analyzing device as recited in claim 23 which further comprises a display section that visually displays the characteristic of the sound signal extracted by said characteristic extraction section.